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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jurgen Nick

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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,589	Applicant(s) NICK ET AL.	
	Examiner Liam J. Heincer	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 20-36 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 and 26-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 20-25, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6, 20-23, 25, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US Pat. 4,173,701) in view of Serini et al. (US Pat. 4,654,411).

Considering Claims 1-4, 6, 20, 21, 25, and 35: Murata et al. teaches a diaphragm (1:6-7) formed from a polyarylate film (Example 2) where the film is produced from the reaction of bisphenol A and a mixture of isophthaly dichloride and terephthaly dichloride/formula (I) where R^1 - R^4 are hydrogen and R^5 - R^6 are methyl (Example 1).

Murata et al. does not teach the film as being produced by a casting process. However, Serini et al. teaches forming a film of an aromatic polyester through a casting method involving casting the polymer solution onto a drum roller/continuous substrate, predrying, removing and drying the film (Example 5). Murata et al. and Serini et al. are analogous art as they are concerned with the same field of endeavor, namely the

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production of aromatic polyester films. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the method of Serini et al. in the production of Murata et al., and the motivation to do so would have been, as Serini et al. suggests, to produce a film of uniform thickness that is free of holes (Example 5).

Considering Claim 5, 22, and 23: Murata et al. teaches the diaphragm as having a thickness of 40 μm (Example 2).

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US Pat. 4,173,701) in view of Serini et al. (US Pat. 4,654,411) as applied to claim 1 above, and further in view of England et al. (US Pat. 6,476,158).

Considering Claim 36: Murata et al. and Serini et al. collectively teach the diaphragm of claim 1 as shown above.

Murata et al. does not teach the film as including an additive. However, England et al. teaches adding solvent yellow 93 to a polyarylate resin (3:33-42). Murata et al. and England et al. are analogous art as they are concerned with the same field of endeavor, namely polyarylate resin compositions. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the colorant of England et al. to the resin of Murata et al., and the motivation to do so would have been, as England et al. suggests, to color the resin with a colorant having good color retention and processing stability (3:33-39).

Claims 7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US Pat. 4,173,701) in view of Serini et al. (US Pat. 4,654,411) as applied to claims 5 and 6 above, and further in view of Ugaji et al. (US Pat. 4,281,223).

Considering Claims 7 and 24: Murata et al. and Serini et al. collectively teach the diaphragm of claims 5 and 6 as shown above.

Murata et al. does not teach the diaphragm being used in one of the claimed devices. However, Ugaji et al. teaches using a diaphragm made from a resin film (2:63-3:7) in a loudspeaker or microphone (3:40-51). Murata et al. and Ugaji et al. are combinable as they are concerned with the same field of endeavor, namely acoustic

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devices made from resin film diaphragms. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the diaphragm of Murata et al. in a microphone or loudspeaker as in Ugaji et al., and the motivation to do so would have been, as Ugaji et al. suggests, to provide a electro-acoustic transducer (1:8-21).

Response to Arguments

Applicant's arguments, see pages 8-11, filed April 29, 2009, with respect to the rejection(s) of claim(s) 1-7, 20-25, 35, and 36 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Murata et al. and Serini et al..

Applicant's arguments filed April 29, 2009 have been fully considered but they are not persuasive, because:

A) Applicants argument that Ugaji et al. teaches away from the claimed invention is not persuasive. The fact that Ugaji et al. teaches other materials than the claimed polyarylate is not sufficient to teach away from using a polyarylate. In order for a reference to teach away from the invention, the reference should provide a disincentive to using the claimed resin. As Ugaji et al. does not mention polyarylate resins, it cannot provide a disincentive to using them in a diaphragm.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harold Y Pyon/
Supervisory Patent Examiner, Art
Unit 1796

LJH

July 2, 2009